who continue to use these methods after therapy has ended have reported further alleviation in levels of depression than they had experienced by the end of the formal treatment program.

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## Hyperkinetic Behavior Disorder

HYPERKINETIC BEHAVIOR (minimal brain dysfunction, attentional deficit disorder) is a common disorder that afflicts 1 out of 20 school-age children. Many disorders of childhood are transient and do not predict psychopathologic conditions that develop later in life. However, recent studies have found that this is clearly not the case for this disorder. As these children grow older, although some types of behavior (such as restlessness and gross motor activity) become less prominent, new and more serious problems frequently arise. By their midteens, most of these children have problems of academic failure (despite normal intelligence). One out of four are found to have severe antisocial behavior, with 20 percent of these cases resulting in court referral. When this disorder persists into adulthood, the psychopathology may include alcoholism, sociopathy and, possibly, psychosis.

Therapy most often consists of single-treatment approaches such as stimulant medication, the Feingold diet, educational intervention, psychotherapy and behavior modification. Stimulant medication without question results in short-term improvements in behavior in about 70 percent of these children; however, the Feingold diet is probably beneficial in no more than 5 percent. Unfortunately, none of the above treatments has been found to produce long-term benefits, such as improved scholastic performance, better social adjustment or a reduction in antisocial behavior.

The discouraging lack of long-term beneficial effects from the single-treatment approach has resulted in studies of combined treatment for this disorder. Such treatment is based on the premise that most of these children are multihandicapped. Hence, it does not make good clinical sense to attempt to treat one disability while ignoring others. Such treatment may point the way to the future. In a three-year study of hyperactive boys, it was found that multimodality treatment resulted in academic gains, better social adjustment at home and at school and a reduction of antisocial behavior. Further studies will be needed to ascertain whether this improvement will persist into adulthood.

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